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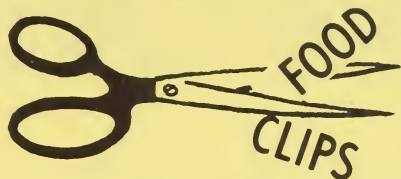
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# Food and Home Notes

UNITED STATES DEPARTMENT OF AGRICULTURE  
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Seasonings for lamb? Try basil, bay leaves, celery, dill, garlic, marjoram, mint, onion, parsley, oregano, rosemary, savory, tarragon, and thyme. Mint sauce is the old-standby.

\* \* \*

If you didn't know....U.S. Department of Agriculture home economists say the secret of making smooth gravy is to blend flour thoroughly with fat or with cold liquid before combining it with hot liquid.

\* \* \*

Oven temperatures need to be checked from time to time. Perhaps your oven is not heating properly--without the properly adjusted oven you can't be a successful baker!

\* \* \*

Bread stales less quickly in a breadbox at room temperature than in a refrigerator. (In hot, humid weather, however, this is not true!)

\* \* \*

Steam leavens the mixture in some quick breads; for example, in popovers...pop-over batter contains more liquid than most batters.

## ON GROWING YOUR OWN - - - Table Beets

Table, or garden beets are grown in a wide range of soils and climates from soils or muck, sand, sandy loams to silt loams. Early crops require sandy loam soils that warm up quickly in the spring. Heavier and more compact soils are more satisfactory for late spring or fall crops.

Beets are fairly tolerant of heat and resistant of cold...but not resistant to freezing. Good beet quality actually depends on quick growth and fertile land which is well-drained and in good physical condition.

Beets are sensitive to strongly acid soils. Soil acidity should be determined by an accurate soil test because it is wise to apply lime if a test shows the need for it. (County Agricultural Agent offers instructions on how to take soil samples and can assist you in having them tested.)

For the home truck garden you should have the rows about 16 inches apart--or just a little closer, no closer than 12. Don't plant those seeds more than an inch below sandy soils--and not that deep in other soils.

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USDA 763-75

## Research on Corn Germ Flour

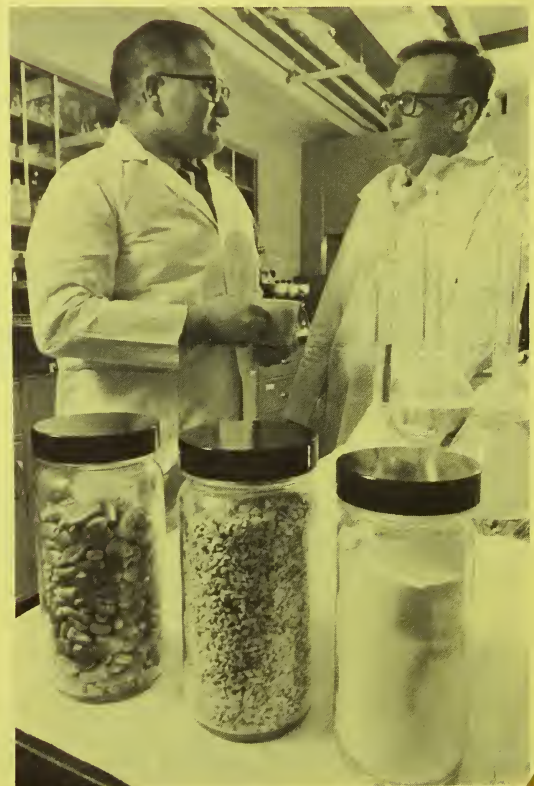


On Left -

Wilbur J. Deatherage, chemist for the Agricultural Research Service, USDA, records data on freshly baked cookies made with germ-wheat flour blend. Cookies must meet standards of width and thickness to be used as a method of evaluation. Order No. 1272A1546-2.

Right: Mr. William J. Garcia, and Mr. Charles W. Blessin, chemists for the Agricultural Research Service, U.S. Department of Agriculture are shown discussing their research with corn germ flour.

(The jars in foreground are whole yellow dent field corn, dry miller, and defatted corn germ flour. Order No. 1272A1546-18.





## U.S.D.A. Research On

## CORN GERM FLOUR

Corn germ flour is a cream-colored flour that comes from one of the best parts of the corn kernel -- but, it's not one of the traditional foods you hear much about. But, you'll probably be hearing more about it in the near future.

Corn germ is not only rich in oil, but it is also a source of nutritive protein, vitamins and minerals and can serve to enrich a variety of foods, according to U.S. Department of Agriculture scientists at the Northern Regional Research Laboratories in Peoria, Ill. Grits, meal and flour are the traditional food items milled from corn but the defatted germ flour is the one to note.

Dry-milled corn germ meal has now been successfully refined and used in making test cookies and muffins. It's even been added to beef patties. The results are acceptable--- flavor, odor and color are good according to a taste panel report.

panel found no objectionable corn flavor in the cookies or in the muffins.

USDA scientists replaced 25 percent of the all-purpose wheat flour in cookies with the corn germ flour, and thereby doubled the levels of amino acids, lysine and tryptophan, and of iron. Phosphorus and potassium levels increased about seven times and magnesium, tenfold.

Research scientists also found that corn germ flour enriched muffins by adding phosphorus, potassium, magnesium and iron, but the enrichment was not as great as in cookies. (The "control" muffins -- unlike the cookies -- contained baking powder, eggs and milk.)

Another way of using corn germ flour is by adding it to uncooked ground beef -- 5 percent by weight, increased the weight of broiled patties by more than 7 percent. One hundred grams of uncooked beef alone yielded 70 grams of broiled patty. In contrast, 95 grams of beef plus 5 grams of germ flour yielded 75.2 grams of broiled patty.

The 70 gram beef patty contained 204 grams -- 29 percent protein; the 75 gram corn germ patty contained 19.5 grams -- 26 percent protein. Fat content was reduced but the levels of fiber, phosphorus, potassium, magnesium, and iron were increased. The meat patties were broiled (no salt added) and the beef patties containing 10 percent corn germ flour were firmer and browned faster than the control or the other patties. (The faster browning may be due to the higher level of sugars.)

Nearly 130 million bushes of white and yellow corn are dry milled yearly to supply food and industrial demands. USDA Chemists Charles W. Blessin, George E. Inglett, William J. Garcia, Wilbur J. Deatherage and James F. Cains of the ARS Labs in Illinois did the research on converting this meal into a new food.

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AVAILABLE TO THE MEDIA ONLY -- Free, on request "Meat Research" report

Consumption of red meats in the United States is expected to increase 50 percent by 1985 and 100 percent by the year 2000 according to Agricultural Research Service researchers at U.S. Department of Agriculture. It's estimated that the demand for poultry will grow by 35 percent and 50 percent, respectively. Out of every \$10 spent for farm-produced foods, it is estimated that \$3.22 goes for red meat and \$0.39 for poultry.

What about tomorrow? Will the technological advances through agricultural science change things? It is already recognized that beef producers will need additional management information in every area from conception to feedlot; from disease control to new management discoveries. There are even reasons to believe that with advanced technology cattle numbers can increase 400 percent in the next 10 to 20 years. It's a far cry from yesteryear.

Single copies of the new "Meat Research" report (Bulletin No. 375) are available (to the working press) by writing to the Editor of Food and Home Notes. (Our supply is limited.)

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